

# **CIRCUIT AND METHOD TO COMPENSATE FOR RMR VARIATIONS AND FOR SHUNT RESISTANCE ACROSS RMR IN AN OPEN LOOP CURRENT BIAS ARCHITECTURE**

## **ABSTRACT**

[049] The present invention discloses a circuit (10) adapted to compensate for RMR variations and shunt resistance across the RMR comprising a first current source (idc1) coupled to a first resistor (r1), a second current source (idc2) coupled to a second resistor (r2), wherein the first resistor (r1) and the second resistor (r2) are coupled, a resistive sensor (RMR) coupled on either side to a third resistor (r3) and to a fourth resistor (r4), and a transconductance feedback block (GM) coupled to the resistive sensor (RMR), the third resistor (r3), and to the fourth resistor (r4).